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(FILE 'HOME' ENTERED AT 14:39:58 ON 15 MAR 2002)

FILE 'BIOSIS, EMBASE, CAPLUS, MEDLINE, CANCERLIT' ENTERED AT 14:40:26 ON 15 MAR 2002

L1	8546	S	RECOMBINASE
L2	2467	S	L1 AND CRE
L3	104	S	L2 AND RETROVIRAL
L4	1140	S	L1 AND FLP
L5	3365	S	L2 OR L4
L6	132	S	L5 AND RETROVIRAL
L7	1	S	L6 AND EXTINGUISH

d l7 ti abs ibib

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

TI Self-extinguishing **recombinases** and their use in expression vectors and genetic engineering

AB Nucleic acid mols. are provided comprising at least a first signal site and a **recombinase** gene operably linked to an expression control sequence. Upon entry into a cell, there is a first signal site and a second signal site positioned to mediate excision of a sufficient portion of either the **recombinase** gene or the expression control sequence to **extinguish recombinase** activity when the first and second signal sites are contacted with a **recombinase**. Self-excision by a selected **recombinase** (**Cre** or **Flp**) of its own coding sequence limits the duration and intensity of the **recombinase** expression so that the **recombinase** expression is sufficient for deletion of a sequence flanked on each side by a signal site, and then further **recombinase** expression is terminated. In one example, two signal sequences (e.g., loxP sites) in a second nucleic acid mol. are in the same, or direct, orientation with respect to one another. Such signal sequences can flank the target gene so that expression of the **recombinase** results in excision of the target gene and inactivation of expression of the target gene; flank a pos. regulatory element of the target gene so that expression of the **recombinase** results in excision of the pos. regulatory element and inactivation of expression of the target gene; or flank a neg. regulatory element of the target gene so that expression of the **recombinase** results in excision of the neg. regulatory element and activation of expression of the target gene. This system eliminates **recombinase** -mediated toxicity or other undesired effects, but yet retains the ability to effect site-specific recombination. Vectors of the invention are useful as research reagents, as well in the in vivo controlled delivery of diagnostic and therapeutic agents, and in the prodn. of agriculturally important transgenic plants, transgenic animals useful in research, and transgenic proteins.

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TITLE: Self-extinguishing **recombinases** and their use in expression vectors and genetic engineering
INVENTOR(S): Livingston, David M.; Silver, Daniel P.
PATENT ASSIGNEE(S): Dana-Farber Cancer Institute, USA
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W: CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

PRIORITY APPLN. INFO.: US 2000-196338 P 20000412

WEST Search History

DATE: Friday, March 15, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L4	L3 and extinguish	0	L4
L3	L2 and retroviral	335	L3
L2	L1 and (cre or flp)	590	L2
L1	recombinase	1077	L1

END OF SEARCH HISTORY